1. A method for treating a bone defect, comprising:

identifying a bone site suitable for receiving an implant; and

introducing a strongly resorbable, poorly crystalline apatitic calcium phosphate at the implant site, whereby bone is formed at the implant site.

2. A method for treating a bone defect, comprising:

identifying a bone site suitable for receiving an implant; and

introducing a hydrated precursor to a strongly resorbable, poorly crystalline apatitic calcium phosphate at the implant site, whereby the hydrated precursor is converted *in vivo* to a poorly crystalline apatitic calcium phosphate and whereby bone is formed at the implant site.

3. The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate is introduced in the form selected from the group consisting of paste, putty and preshaped object.

4. The method of claim 2, wherein the hydrated precursor is introduced in the form selected from the group consisting of paste and putty.

5. The method of claim 3 or 4, characterized in that, said paste is injectable for a time greater than about 10 minutes at about 25 °C, hardens within about 10 to 60 minutes at about 37 °C.

6. The method of claim 1, wherein said poorly crystalline apatitic calcium phosphate has x-ray diffraction substantially as shown in Figure 3a.

7. The method of claim 1, wherein the strongly bioresorbable, poorly crystalline apatitic calcium phosphate has an X-ray diffraction pattern comprising broad peaks at 2θ values of 26°, 28.5°, 32° and 33°.

8. The method of claim 1, wherein the strongly bioresorbable, poorly crystalline apatitic calcium phosphate is characterized in that, when placed in a rat intramuscular site, resorption of at least 1 g of the material is at least 80% resorbed within one year.

9. The method of claim 1, wherein the strongly bioresorbable, poorly crystalline apatitic calcium phosphate is characterized in that, when placed in a rat intramuscular site, resorption of at least 1 g of the material is at least 80% resorbed within one month.

10. The method of claim 1 or 2, wherein the implant site comprises a tooth socket.

11. The method of claim 1 or 2, wherein the implant site comprises a non-union bone.

12. The method of claim 1 or 2, wherein the implant site comprises a bone prosthesis.

13. The method of claim 1 or 2, wherein the implant site comprises an osteoporotic bone.

14. The method of claim 1 or 2, wherein the implant site comprises an intervertebral space.

15. The method of claim 1 or 2, wherein the implant site comprises a alveolar ridge.

16. The method of claim 1 or 2, wherein the implant site comprises a bone fracture.

17. A method of preparing a ceramic implant, comprising:

mixing in any order,

(a) a reactive amorphous calcium phosphate,

(b) a second calcium phosphate, the second calcium phosphate and the reactive amorphous calcium phosphate in a proportion to form an apatitic calcium phosphate, and

(c) a physiological liquid, said liquid in the amount to provide a paste or putty; and

introducing the paste or putty into an implant site.

18. The method of claim 17, wherein the reaction is carried out at no greater than about 37 °C.

19. The method of claim 17, wherein the fluid selected from the group consisting of water, a physiologically acceptable pH-buffered solution, saline solution, serum and tissue culture medium.

20. The method of claim 17, wherein the paste or putty is injected into the implant site.